nevertheless (as in column 9), there he present comparatively not very important faults, yet the capacity for utilisation in the comhustion chamber goes down considerably.
The figures ascertained make not the smallest claim on absolute accuracy, and the illustration is able to suffer considerable disarrangement, through the capability of the individual gases to endure higher preheating or not. Nevertheless, the figures cannot very well be denied a real value*, for comparison. Now, from these and from the circumstance that with the faultily manufactured gas set out in column 9, as well as with demonstratively much worse gases, steel, is produced with a consumption of 425 kilogrammes coal per 100 kilogrammes steel; HO the conclusion appears correct that in open-hearth furna.ce working in respect of economy of fuel, the last word has not yet been spoken.
But, likewise, the considerations demonstrate the value of faultless working of the producer for good utilisation of the fuel in melting stool.
The figures given in the preceding section give the total amounts of heat which will be given off to the combustion chamber. This total amount can naturally not be completely utilised for steel production since the very considerable portion thereof, which can be different for all different furnaces, goes to loss through radiation and conduction. In general, the extent of this loss is difficult to estimate. NevertholoHH, however, it can bo taken that for one and the name furnace it amounts to approximately the name value per unit of time. Thus all measures which give rise to a shortening of the "chargedui'G "l must effect an increase in the quantity of heat which is transferred in the unit of time, whilst the radiation loss remains constant, and thus admit of the total quantity of fuel employed appearing smaller.
There is, therefore, likewise given a moauH of favourably influencing the fuel consumption in open-hearth furnace
1 Note, by translator.-—Thin word has been coined by the tnmwlator for the purposes of this book. The German word "ohargenduuer" UOH no Kti^lmh' equivalent. II. means the period from eommeneerwml of eharging <<> emptying the furnaee. The word uehari(e" in Kn^lish is used often in the re.strieterii sense of original eharp', aiul (iocs not apply to the smelted product, or tl heat.*' The expressions used in Mnglish si eel works are HO loosely employed an to rentier consideration of the context msecBHary in most